APPLIED ERGONOMICS

Index to volume 24 (1993), Nos 1–6, pages 1–440

Articles

A call for transgenerational design *Woudhuysen J* **44**

A comparative study of two shovel designs *Degani A, Asfour S S, Waly S M and Koshy J G* **306**

A cube model for the classification of work with hand tools and the formulation of functional requirements *Sperling L, Dahlman S, Wikström L, Kilbom Å and Kadefors R* **212**

A demographic overview of the ageing of First World populations *Coleman R* **5**

A methodology to assess the upper extremity strength in a chair egress posture *Naqvi S A A, Stobbe T J and Stanley C F* **125**

A new approach to input device key design using fingerprints *Lin R and Kreifeldt J G* **413**

A new conceptual structure for travel information *Verhoef L W M* **263**

A pilot survey of the traditional use of the patuka round the waist for the prevention of back pain in Nepal *Shah R K* **337**

A proposal for new keypad design of electronic locks *Trayner C* **362**

A three-year longitudinal assessment of changes in office activities following the introduction of microcomputers into a multinational bank *Amick B C A III and Damron J* **397**

Activities and products for the Third Age *Bound J and Coleman R* **58**

Ambulant disabled persons using buses: experiments with entrances and seats *Petzäll J* **313**

An alternative speed control for industrial sewing machines *Curry Z D and Leamon T B* **284**

An appraisal of a selection of products currently available to older consumers *Gardner L, Powell L and Page M* **35**

An approach to ergonomics evaluation of hand tools *Kadefors R, Areskoug A, Dahlman S, Kilbom Å, Sperling L, Wikström L and Öster J* **203**

An improved motorcycle helmet design for tropical climates *Patel R and Mohan D* **427**

Analysis of working postures in hammering tasks on building construction sites using the computerized OWAS method *Mattila M, Karwowski W and Vilkki M* **405**

Design and evaluation of an inspection training programme *Kleiner B M and Drury C G* **75**

Design and sizing of ergonomic handles for hand tools *Lewis W G and Narayan C V* **351**

Design by story-telling *Moggridge B* **15**

Design for the elderly: a biological perspective *Fisk J* **47**

Design for the elderly: user-based evaluation studies involving elderly users with special needs *Sandhu J* **30**

Designing for our future selves *Coleman R and Pullinger D J* **3**

Designing for our future selves: the Swedish experience *Benktzon M* **19**

Determination of optimal location for paracnute ripcord handle in a suspended position *Latif N T, Aghazadeh F, Waikar A M and Lee K S* **119**

Development of intelligent design associates: a case study *Mitta D A and Ellis N C* **235**

Earmuff effectiveness against chainsaw noise over a 12-month period *Kirk P* **279**

Effect of protective gloves on hand movement: an exploratory study *Bellingar T A and Slocum A C* **244**

Effectiveness of the C-Sharp: reducing ergonomics problems at VDTs *Gallimore J J and Brown M E* **327**

Effects of exercise on carpal tunnel syndrome symptoms *Thomas R E, Butterfield R K, Hool J N and Herrick R T* **101**

Ergonomics aspects of crop production in tropical developing countries: a literature review *Rogan A and O'Neill D* **371**

Ergonomics evaluation of the work of VDT operators in Poland *Kamieńska-Zyla M* **432**

Friction between hand and handle. Effects of oil and lard on textured and non-textured surfaces; perception of discomfort *Bobjer O, Johansson S-E and Piguet S* **190**

Hand tools for the 1990s *Eklund J and Freivalds A* **146**

Images of age: a reflexive process *Blaikie A* **51**

Modernization of a laundry processing plant: is it really an improvement? *Wands S E and Yassi A* **387**

Navigation in hypertext through virtual environments *Smith P A and Wilson J R* **271**

Older people, driving and new technology *Sixsmith J and Sixsmith A* **40**

Order effects and the weighting process in workload assessment *Dickinson J, Byblow W D and Ryan L A* **357**

Perception of heavy work operations by tank truck drivers *Johansson S-E and Borg G* **421**

Perception of posture of short duration in the spatial and temporal domains *Kumar S* **345**

Pneumatic tool torque reaction: reaction forces, displacement, muscle activity and discomfort in the hand–arm system *Kihlberg S, Kjellberg A and Lindbeck L* **165**

Psychophysical modelling of lifting capacity of Chinese males using strength variables *Wu S-P and Hsu S-H* **251**

Reaction torques and operator stress while using powered nutrunners *Freivalds A and Eklund J* **158**

Recommendations for the assessment and design of young children's bicycles on the basis of anthropometric data *Donkers P C M, Toussaint H M, Molenbroek J F M and Steenbekkers L P A* **109**

RULA: a survey method for the investigation of work-related upper limb disorders *McAtamney L and Corlett E N* **91**

Screwdrivers and their use from a Swedish construction industry perspective *Cederqvist T and Lindberg M* **148**

Sensitivity of the hand to surface pressure *Fransson-Hall C and Kilbom Å* **181**

Simplifying the interface for everyone *Wood J* **28**

Slipperiness of the shoe-floor interface: comparison of objective and subjective assessments *Grönqvist R, Hirvonen M and Tuusa A* **258**

Task-specific preference for numeric keypads *Straub H R and Granaas M M* **289**

The ageing process: a challenge for design *Haigh R* **9**

Tool design, user characteristics and performance: a case study on plate shears *Kilbom Å, Mäkäräinen M, Sperling L, Kadefors R and Liedberg L* **221**

Torque reaction in angled nutrunners *Lindqvist B* **174**

Two-dimensional photographic posture recording and description: a validity study *Paul J A and Douwes M* **83**

Authors of articles

Aghazadeh F **119**
Amick B C A III **397**
Areskoug A **203**
Asfour S S **306**
Bellingar T A **244**
Benktzon M **19**
Blaikie A **51**
Bobjer O **190**
Borg G **421**
Bound J **58**
Brown M E **327**
Butterfield R K **101**
Byblow W D **357**
Cederqvist T **148**
Coleman R **3, 5, 58**
Corlett E N **91**
Curry Z D **284**
Dahlman S **203, 212**
Damron J **397**
Degani A **306**
Dickinson J **357**
Donkers P C M **109**
Douwes M **83**
Drury C G **75**
Eklund J **146, 158**
Ellis N C **235**
Fisk J **47**
Fransson-Hall C **181**
Freivalds A **146, 158**
Gallimore J J **327**
Gardner L **35**
Granaas M M **289**
Grönqvist R **258**
Haigh R **9**
Herrick R T **101**
Hirvonen M **258**
Hool J N **101**
Hsu S-H **251**
Johansson S-E **190, 421**
Kadefors R **203, 212, 221**
Kamieńska-Zyla M **432**
Karwowski W **405**
Kihlberg S **165**
Kilbom Å **181, 203, 212, 221**
Kirk P **279**
Kjellberg A **165**
Kleiner B M **75**
Koshy J G **306**
Kreifeldt J G **413**
Kumar S **345**
Latif N T **119**
Leamon T B **284**
Lee K S **119**
Lewis W G **351**
Liedberg L **221**
Lin R **413**
Lindbeck L **165**
Lindberg M **148**
Lindqvist B **174**
Mäkäräinen M **221**
Mattila M **405**
McAtamney L **91**
Mitta D A **235**
Moggridge B **15**
Mohan D **427**
Molenbroek J F M **109**
Naqvi S A A **125**
Narayan C V **351**
O'Neill D **371**
Öster J **203**
Page M **35**
Patel R **427**
Paul J A **83**
Petzäll J **313**
Piguet S **190**
Powell L **35**
Pullinger D J **3**
Rogan A **371**
Ryan L A **357**
Sandhu J **30**
Shah R K **337**
Sixsmith A **40**
Sixsmith J **40**
Slocum A C **244**
Smith P A **271**
Sperling L **203, 212, 221**
Stanley C F **125**
Steenbekkers L P A **109**
Stobbe T J **125**
Straub H R **289**
Thomas R E **101**
Toussaint H M **109**
Trayner C **362**
Tuusa A **258**
Verhoef L W M **263**
Vilkki M **405**
Waikar A M **119**
Waly S M **306**
Wands S E **387**
Wikström L **203, 212**
Wilson J R **271**
Wood J **28**
Woudhuysen J **44**
Wu S-P **251**
Yassi A **387**

Keywords

2-D photography **83**
Accidents **30, 35**
Ageing **5, 9, 15, 19, 28, 30, 35, 40, 44, 47, 51, 58**
Agriculture **371**
Air **263**
Alarm handling **357**
Ambulant disabled **313**
Angled nutrunner **174**
Anthropometry **109**
Assessment **91**
Attenuation **279**
Back pain **337**
Bicycles **109**
Biomechanics **165**
Bus **313**
Carpal tunnel syndrome **101**
Chair **125**
Children **109**
Classification system **212**
Coefficient of friction **258**
Cognition **9**
Comfort **427**
Computerized OWAS method **405**
Conceptual structure **263**
Construction work **148**
Consumer durables **30**
Consumer safety **35**
Contaminant **190**
Cumulative trauma disorder **101**
Cutlery **19**
Demographics **5**
Design **5, 15, 19, 28, 30, 35, 40, 44, 47, 51, 58**
Design associates **235**
Design process **203**
Developing countries **371**
Diet **47**
Disability **19, 47**
Discomfort **190**
Display design **357**
Do it yourself **44**
Doko **337**
Domestic aids **35**
Domestic safety **30**
Driving **40**
Dynamic panels **263**
Effort perception **345**
Egress **125**
Elderly **44, 125**
Electromyography **158, 351**
Electronic locks **362**
EMG **148, 165**
Evaluation methods **203**
Fall prevention **258**
Farmer participation **371**
Fatigue **221**
Field study **306**
Fingerprints **413**
Flight **263**
Foot slippage **258**
Force plate **165**
Forestry **279**
Friction **190**
Friction utilization ratio **258**
Glare shields **327**
Gloves **244**
Hammering tasks **405**
Hand **190**
Hand function **9**
Hand size **221**
Hand tools **19, 148, 203, 212, 306, 351, 371**
Handgrip strength **221**
Handicap **47**
Handle displacement analysis **174**
Handle location **119**

Handles **351**
Health and safety **387**
Hearing **9**
Hearing protection device **279**
Heavy work operations **421**
Helmet **427**
Help point **28**
High-speed cinematography **244**
Hypertext **271**
Image **51**
Impairment **47**
Impulse **174**
Information **263**
Information boards **263**
Information technology **44**
Input device **413**
Intelligent software tools **235**
Interface **28**
Joint **174**
Key design **413**
Keypad layout **362**
Kinematic hand motion **244**
Knowledge-based systems **235**
Laundry **387**
Lifestyle **4, 51, 58**
Lifting capacity **251**
Longitudinal study **397**
Manual materials handling **251**
Mental workload assessment **357**
Methodology **125**
Microcomputers **397**
Motion analyses **165**
Motor nerve conduction latency **101**
Motorcycle **427**
Muscle fatigue **148**
Musculoskeletal disorders **306**
Navigation **271**
Noise levels **279**
Numeric keypads **289**
Nutrunners **165**
Office tasks **397**
Pain **181**
Pain–pressure threshold **181**
Palm **190**
Parachute design **119**
Passengers **263**
Patuka **337**
Perceived exertion **158, 421**
Perception **190**
Perspective error **83**
Pilot survey **337**
Plate shears **212, 221**
Postural analysis **405**
Posture **83, 125, 148**
Posture perception **345**
Powered nutrunners **158**
Prevalence of diseases **421**
Process control **357**
Product evaluation **30, 35**
Productivity **221**
Protective clothing **244**
Psychophysical modelling **251**
Psychophysics **421**
Public transport **313**
Push force **148**
Quality control **75**
Ratings **421**
Reaction forces **165**
Reaction torque **158**
Repetitive hand motion tasks **101**
Repetitive strain injuries **387**
Rest breaks **148**
Road transport informatics **40**
RSI **91**
Safety **427**
Scale transformations **421**
Scenario building **15**
Screwdrivers **148**
Seat **125**
Security **362**
Shovels **306**
Sliding distance **258**
Spatial awareness **345**
Strength **125**
Strength testing **119**
Stress concentration **351**
Subjective ratings **158, 165, 174**
Surface electromyography **306**
Task variability **397**
Testing **125**
Texture **190**
Third Age **5, 51, 58**
Timetables **263**
Tool **181**
Tool design **221**
Torque analysis **174**
Train **263**
Training **75**
Transgenerational design **44**
Travel information **263**
Traveller **263**
TV remote controller **413**
Upper limb disorders **91**
Urban environment **44**
User opinions **212**
User preferences **289**
User trials **28**
Validation **258**
Validity **83**
VDT **327**
VDT operator discomfort **432**
Virtual reality **271**
Vision **9**
Visual fatigue **327**
Walking trial **258**
Work demands **212**
Work organization **148, 212**
Working posture **91**
Workplace design **75**

Abstracts

130, 295

Books

Increasing productivity and profit through health and safety: case studies in successful occupational health and safety practice *Maurice Oxenburgh* **141**
Making shiftwork tolerable *Timothy H Monk and Simon Falkard* **141**
Participatory ergonomics *K Noro and A S Imada (eds)* **63**
Work design: industrial ergonomics 3rd edn *Stephan Konz* **63**

Conferences

Human draught animal power in crop production Harare, Zimbabwe 18–22 January 1993 **300**
Ergonomics Society Annual Conference Edinburgh, Scotland 13–16 April 1993 **301**

Tools and techniques

291

News

64, 143, 231, 301

Procrustes

142, 294, 367